

AMENDMENTS TO THE CLAIMS

Without prejudice, please amend the claims as reflected in the following listing of claims, which will replace all prior versions, and listings, of claims in the application:

1. **(Currently Amended)** Apparatus ~~to heat~~ for heating a bitumen froth by steam comprising:

i. ~~a source of steam;~~

ii. ~~an inline~~ a heater body comprising a bitumen ~~froth inlet for receiving bitumen froth,~~ a steam inlet in ~~communication with the source of for receiving steam,~~ and a mixture outlet ~~all in common communication with each other;~~

iii. ~~a baffle disposed across the mixture outlet; and~~

iv. ~~an elongate~~ a static mixer body having first and second spaced ends and forming a passageway therethrough extending between the first and second ends, wherein the first one end of the passageway is in communication with the mixture outlet, the static mixer body supporting a plurality of baffles disposed to effect a mixing action of material flowing through the passageway thereof;

wherein the apparatus is operably configured to direct substantially all of the bitumen froth and steam out the second end of the static mixer body.

2. **(Original)** The apparatus of claim 1 wherein the baffles are disposed within the static mixer body to impart a lateral, radial, tangential or circumferential directional component to a material flow through said static

mixer passageway that changes repeatedly along the length of the passageway.

3. **(Currently Amended)** The apparatus of claim 1 further comprising including a steam flow control valve to control the a rate of steam supply to the steam inlet from a steam source.

4. **(Currently Amended)** The apparatus of claim 3 further comprising including a temperature transmitter disposed to measure the a temperature of material flowing through the passageway of the static mixer thereby forming a closed loop control system of the steam flow control valve responsive to the measured temperature.

5. **(Currently Amended)** The apparatus of claim 1 further comprising including a steam flow pressure control valve to control the a pressure of steam supply supplied to the steam inlet from the a steam source.

6. **(Currently Amended)** The apparatus of claim 5 further comprising including a pressure transmitter disposed to measure the pressure of steam supply-supplied from the steam flow pressure control valve thereby forming a closed control system of the steam flow pressure control valve to maintain the pressure of the steam supplied to the steam inlet.

7. **(Currently Amended)** The apparatus of claim 1 further comprising including:

i. condensate source;

ii. a condensate mixer operably configured means to mix the a condensate with the steam from the steam source; and

iii. a condensate flow control valve to control the a supply of the condensate to the mixing means condensate mixer.

8. **(Currently Amended)** The apparatus of claim 7 further comprising ~~including~~ a temperature transmitter disposed to measure ~~the~~ a temperature of a steam supply to the steam inlet thereby forming a closed loop control system of the condensate flow control valve to control the supply of the condensate to the steam supply to the steam inlet responsive to the measured temperature.

9. **(Currently Amended)** Apparatus ~~to heat for heating~~ a bitumen froth by steam comprising;

i. ~~— a source of steam;~~

ii. ~~— an inline~~ a heater body comprising a bitumen froth inlet for receiving bitumen froth, a steam inlet ~~in communication with the source of for receiving steam~~, and a mixture outlet ~~all in common communication with each other;~~

iii. ~~— a steam pressure flow control valve to control the~~ a pressure of steam supply supplied to the steam inlet from ~~the~~ a steam source;

iv. ~~— a condensate source;~~

v. ~~— means a condensate mixer operably configured to mix the~~ a condensate with the steam from the steam source;

vi. ~~— a condensate flow control valve to control the~~ a supply of the condensate to the condensate mixer ~~mixing means;~~

vii. ~~— a steam flow control valve to control the~~ a rate of steam supply to the steam inlet from the steam source;

viii. ~~— a baffle disposed across the mixture outlet; and~~

~~ix. an elongate a static mixer body having first and second spaced ends and forming a passage extending between the first and second ends therethrough, one wherein the first end of the passage is in communication with the mixture outlet, the static mixer body supporting a plurality of baffles disposed to effect a mixing action of material flowing through the static mixer,~~

wherein the apparatus is operably configured to direct substantially all of the bitumen froth and steam out the second end of the static mixer body.

10. **(Original)** The apparatus of claim 9 wherein the baffles are disposed within the static mixer body to impart a lateral, radial, tangential or circumferential directional component to a material flow through said passage that changes repeatedly along the length of the static mixer passage.

11. **(Currently Amended)** The apparatus of claim 9 further comprising ~~including a temperature transmitter disposed to measure the a temperature of material flowing through the passage of the static mixer proximal to the second end of the passage remote from the end in communication with the mixture outlet forming a closed loop control system with the steam flow control valve to control the supply of steam to the material to obtain a target output temperature of the material flow leaving the static mixer.~~

12. **(Currently Amended)** The apparatus of claim 9 further comprising ~~including a pressure transmitter disposed to measure the a pressure of steam supply supplied to the steam inlet from the steam source forming a closed loop control system of the steam pressure flow control valve to control the supply of steam to the steam inlet responsive in response to the measured pressure.~~

13. **(Currently Amended)** The apparatus of claim 9 further including comprising ~~including a temperature transmitter disposed to measure the a temperature of steam supply supplied to the steam inlet forming a closed loop control~~

system of the condensate flow control valve to control the supply of condensate to the mixing means in response ~~responsive~~ to the measured temperature.

14 to 24. (Cancelled)

25. **(New)** The apparatus of claim 1 further comprising a steam source operably configured to deliver steam to the steam inlet at about 90 psi.

26. **(New)** The apparatus of claim 3 wherein the steam source is operably configured to deliver steam to the steam flow control valve at about 90 psi.

27. **(New)** The apparatus of claim 5 wherein the steam source is operably configured to deliver steam to the steam flow pressure control valve at about 90 psi.

28. **(New)** The apparatus of claim 9 wherein the steam source is operably configured to deliver steam at about 90 psi.